

Abstract of the Disclosure

A composite polymer electrolyte for a lithium secondary battery and a method of manufacturing the same are provided. The composite polymer electrolyte includes a composite film structure which includes a first porous polymer film with good mechanical properties and a second porous polymer film with submicro-scale morphology of more compact porous structure than the first porous polymer structure, coated on a surface of the first porous polymer film, and an electrolyte solution impregnated into the composite film structure. The different morphologies of the composite film structure enable to an increase in mechanical properties and ionic conductivity. Furthermore, the charge/discharge cycle performance and stability of a lithium metal polymer secondary battery are enhanced.